# HOILIO

#### UNIVERSITY OF ALBERTA 29 MAY 1992



#### Hawking believes all's right with the universe for a few million years

Renowned physicist in Alberta for symposium in honour of Werner Israel

If the density of the universe is greater than a certain critical value, gravitational attraction would eventually stop the universe's expansion and it would eventually collapse into a "big crunch", or a state of infinite density in which the laws of physics would break down, says Stephen Hawking, the Lucasian Professor of Mathematics at Cambridge University.

Addressing a sold-out Jubilee Auditorium 19 May on the future of the universe, the renowned theoretical physicist and author of the best-seller *A Brief History of Time*, said, on the other hand, "If the average density of the universe is less than a critical value, it would not re-collapse, but would continue to expand forever. After a certain time, the density would become so low that the gravitational attraction would not have a significant effect in slowing down the expansion.

"The galaxies would continue to move apart at a constant speed," said Dr Hawking, who addressed the audience with the aid of a speech synthesizer and computer. (Dr Hawking suffers from Lou Gehrig's disease, is confined to a wheelchair and has lost the use of his voice.)

"So the crucial question for the future of the universe is: What is the average density?" he said. "I do, however, have certain advantages over the prophets of doom: If the universe is going to re-collapse, I can confidently predict that it will not stop expanding for at least 10 million years," he said, in an address often punctuated with humourous comments about humankind's seeming insignificance in the cosmos. "I don't expect to be around to be proved wrong.

"We can try to estimate the average density of the universe from observations," Dr Hawking explained. Counting the stars, adding up their masses, and including the observable clouds of gas, doesn't come close to accounting for the critical mass. "However, we know that the universe must also contain dark matter which we cannot observe directly," said Dr Hawking, adding that evidence of the dark matter can be obtained by observing spiral galaxies and cluster galaxies.

Spiral galaxies are spinning at such a rate that they would fly apart if it were not for some core of matter whose gravitational attraction is great enough to hold the galaxies together as they rotate, he said. "One can make fairly reliable estimates of the amount of the dark matter in galaxies for which we have definite evidence.

Continued on page 2



Stephen Hawking, shown in conversation with Physics Professor Werner Israel, is the Lucasian Professor of Mathematics at Cambridge University in England. The position was once held by Isaac Newton.

#### Oxford English Dictionary poised to go on-line

#### Massive reference source to be fine-tuned over the summer

he electronic edition of the Oxford English Dictionary (OED) is, in a word, incredible. That's no Hyperbus hyperbole, for how else to describe the fact that with the magnetic tape that contains the entire contents of the OED (second edition) and the software for text retrieval and searching, users can access the 60 million running words of the dictionary almost instantaneously. Searches at the speed of light are only a few weeks away, the University of Alberta having purchased a site licence and the attendant hardware and set up a Unix workstation in the Data Library unit in Cameron Library. The magnetic tape that contains the text of the dictionary and the searching software that provides access to the dictionary is on the way.

The tape holds everything that's in the 20-volume set of the *OED*, that is, definitions of more than half a million words, 249,000 etymologies, more than 2.4 million illustrative quotations and 616,500 word-forms. When the paper version of the dictionary was published in 1989, it was inevitable that some updates and corrections would have to be made. The tape contains all changes; the third edition of the *OED* won't be published until 2015.

The text of the dictionary and its indices take up 1.2 billion bytes of disk space.

The searching program, which was created at the University of Waterloo and is

known as PAT/LECTOR, allows the sorting of the *OED*'s 60 million running words in less than a second. What's more, the program can be readily applied to other campus units which deal with large amounts of text. (The first edition of the *OED* is available on CD-ROM, but it's a one-researcher-one-computer kind of operation.)

Terry Butler, Humanities Computing Coordinator, and Data Librarian Chuck Humphrey will be installing and testing the *OED* in July and it will be available on the new campus network early in September. Université de Montréal is the only other Canadian university to have mounted the electronic *OED*.

"The electronic form of the dictionary is a research tool which will be of immense value to scholars in literature and in social sciences. It is also, of course, an authoritative reference for anyone writing in English," Butler says. He points out that while there are only a couple of printed editions of the *OED* on campus in reference libraries, the electronic version will be available to all faculty and students wherever they have a computer connection to the campus network, including dial-up access from computers with modems at home or in their dorms.

Examples of research questions that can be answered speedily are: What are all the words which first came into the language in the 15th century? How have the meanings of the term "rights" changed since 1800? Which English words of French origin are now classified as popular or slang? What are all the verbs coined by Shakespeare?

"In seconds, the *OED* can do the research that someone may have spent years on," says Collections Coordinator Merrill Distad.

Rob Merrett, Professor of English and Director of External Relations and Fund Development, Faculty of Arts, calls the electronic version of the OED "a terrific self-instructional tool for students," and predicts levels of general service and pedagogical service will be high. He has worked on the project for more than a year and helped raise funding by telling the Friends of the University of Alberta of the research value of the OED and securing \$10,000 from that body to buy the site licence from Oxford University Press. The University Library system and two Edmonton families the Frank Paege family and the Howard Irving family—contributed significantly to the acquisition of the OED. (Before accessing the OED, researchers will encounter a set of screens, one of which will be a donor recognition screeen.)

More on-campus fundraising awaits Dr Merrett when he returns from the Learned Societies Conference in Charlottetown.

The official launch of the electronic *OED* will take place in late August.

# THE UNIVERSITY OF ALBERTA'S STRATEGIC PLANNING TASK FORCE INVITES SUBMISSIONS

For a copy of the
Key Issues Document, contact:
Dr Peter Taitt
3-20 University Hall
Telephone: 492-3540
Fax: 492-1439
Public meetings 25 and 29 June
8-5 pm, 2-115 Education North

#### Reception for Associate Vice-Presidents Evans and Kieren

Members of the University community are cordially invited to attend a wine and cheese reception on Friday, 12 June, 3:30 to 6:30 pm at University House, to honour Dr Brian Evans and Dr Dianne Kieren for their dedicated and outstanding service to the University as Associate Vice-Presidents (Academic).

#### **Hawking**

Continued from page 1

But this estimate is still only about 10 percent of the critical density needed to cause the universe to collapse again.

"Thus, if one just went by the observational evidence, one could predict that the universe would continue to expand forever," he said. But, Dr Hawking remarked, there may be dark matter that hasn't been detected yet.

He said it's possible there could be many different universes with different densities, and only those that were very close to the critical density would last for very long and contain enough matter for stars and planets to form. "Only in those universes, will there be intelligent beings who ask the question, 'why is the density so close to the critical density?"" he said to laughter.

To the science fiction enthusiasts in the audience, he offered these comments: "It seems that the laws of physics do not allow for time travel. The best evidence that we have that time travel is not possible, and never will be in the future, is because we have not been invaded by hordes of tourists from the future."

At the beginning of his lecture, Dr Hawking qualified his remarks by stating that scientific predictions—like those of the ancient oracles or prophets—may not be any more reliable. "One only has to think of the example of weather forecasts."

In concluding, he said the behaviour of the universe seems on a very large scale to be simple and not chaotic. Scientists believe that the universe is governed by well-defined laws that in principle allow one to predict the future, but the motion triggered by the laws is often chaotic. This means that tiny changes in the initial situation can lead to change in the subsequent behaviour. "Thus, in practice, one can only predict a fairly short time in the future."

Dr Israel, one of Dr Hawking's closest collaborators and one of the world's most outstanding gravitational theorists, said the lecture was a rare opportunity to share the thoughts of one of the world's leading scientists, "a man whose discoveries have pushed

the boundaries of the unknown and whose popular writings have captured the imagination of the world."

Dr Hawking is credited with one of the most outstanding cosmological discoveries of the 20th century, when he discovered in 1974 that black holes can evaporate. Dr Israel says, "Stephen Hawking is without question the greatest contributor to the theory of general relativity since Einstein."

Earlier in the day, Dr Hawking spoke to the press. Many of the questions he answered dealt with his debilitating disease, amyotrophic lateral sclerosis. Hawking said, "I get embarrassed when people say I have great courage. I have only done what I intended to do anyway before I knew I had ALS. I think the people with real courage are those who are worse affected, but who don't get public attention or sympathy. Yet they don't complain."

On the question of the integration of the disabled into classroom settings, he said, "I feel strongly about this. I would not want to be kept in a ghetto and other disabled people must feel the same. I can speak only for the physically disabled. Modern technology can make up for our limitations," said Hawking, who has his computer and speech synthesizer mounted on his wheelchair. (He says the system has, in fact, allowed him to communicate better now than before he lost his voice.)

He said some people have done very good work, providing technological innovations to help the disabled. "What I think is lacking, however, is the willingness to provide enough money to make the technology available to all those who need it.

"There's no reason to discriminate on the grounds of physical disability, any more than on the grounds of race, sex or religion. It's a matter of basic human rights," he said.

Fraser Mustard, President of the Canadian Institute for Advanced Research (CIAR), said he agreed with Dr Hawking. "To ghettoize people is totally wrong, but you have to have a society that has a strong commitment to building a strong system of social justice."

Dr Israel is a Fellow of the CIAR Cosmology program and Dr Hawking is an international associate of CIAR.

# TALKS

#### ALBERTA HERITAGE FOUNDATION FOR MEDICAL RESEARCH

1 June, 4 pm

John A Trinick, senior research fellow, Department of Veterinary Medicine, Bristol University, "Titin and Nebulin—Molecular Rulers in Muscle?" Presented by Anatomy and Cell Biology. 5-10 Medical Sciences Building.

9 June, 4 pm

Steve Sugrue, associate professor, Department of Anatomy and Cellular Biology, Harvard Medical School, "Adhesion Interactions of the Corneal Epithelium." Presented by Anatomy and Cell Biology. 5-10 Medical Sciences Building.

#### CENTRE FOR RESEARCH IN MATERNAL, FETAL AND NEWBORN HEALTH

1 June, 4 pm

Kathleen Eyster, Department of Physiology and Pharmacology, University of South Dakota, "Endogenous Modulators of Protein Kinase C."

352 Heritage Medical Research Centre.

#### CENTRE FOR ADVANCED ENGINEERED MATERIALS

11 June, 10 am

Mike Kersker, JEOL Ltd, Boston, "Transmission Electron Microscopy: The Future." CW-410 Biological Sciences Building. Cosponsor: Microscopical Society of Canada (Alberta Section).

#### CHEMISTRY

22 June, 11 am

Eckhard Leistner, Department of Pharmaceutical Biology, University of Bonn, Germany, "Biosynthesis of the Menadione Chromophore." E3-25 Chemistry Building.

#### DENTISTRY

30 May, 8:30 am

Hector MacLean Memorial Lecture. T Donovan, University of Southern California, "Esthetic Restorative Materials." Information and registration: Debbie Grant, 492-5023. Cosponsor: Alberta Dental Association. Fantasyland Hotel.

11 and 12 June, 8:30 am

S Szpunar, University of Michigan, "Update on Prevention in Dentistry." Information and registration: Debbie Grant, 492-5023. Lister Hall.

#### GEOLOGY

4 June, 11 am

Kevin C Hill, Department of Geology, LaTrobe University, Melbourne, Australia, "Structure and Tectonics of Mainland Papua New Guinea." 104 Earth Sciences Building.

#### PHARMACY AND PHARMACEUTICAL SCIENCES

10 June, 11 am

Kazuei Igaraski, Faculty of Pharmaceutical Sciences, Chiba University, Japan, "Characteristics and Genetics of Polyamine Transport." Sponsor: Alberta Heritage Foundation for Medical Research. 6069 Dentistry-Pharmacy Centre.

# 'Family Day at SUPERFARM': a party where you learn something

All University of Alberta staff and students are invited to bring their families and join with the public at 'Family Day at SUPERFARM', Saturday, 6 June, 11 am to 4 pm.

It's a special event designed to strengthen the ties between the University and the community it serves, says President Paul Davenport. "By inviting the public to the Edmonton Research Station (University Farm), we hope to engender some awareness of the kinds of research conducted in the Faculty of Agriculture and Forestry, and some appreciation of the contribution our University makes to the Edmonton community.

"We also hope it will be a day of fun," the President says.

The day's organizers—the Faculty of Agriculture and Forestry and the Office of Public Affairs—have combined the two elements and say:

"VISIT pigs and piglets, sheep and lambs, hens and chicks

BAKE your own bannock

RIDE on a haywagon

SEE - TOUCH - ASK QUESTIONS at demonstrations and displays

MARVEL at a look into a cow's stomach to see how digestion works

BE AMAZED by the new high-tech applications to farming

WONDER at ways to improve plants JUMP into a pit to inspect our Alberta soil GET ADVICE for your sick plants from the Muttart Conservatory horticulturist - and much more!"

SUPERFARM entrance is at 60 Avenue and 115 Street. Admission and parking are free. Visitors may bring a picnic lunch or buy food and drinks on-site.

About 30 members of the U of A Campus Ambassadors, a group trained by Student Orientation Services, will assist with the presentation of 'Family Day at SUPERFARM'.

#### **FOLIO**

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MICHAEL ROBB: ASSISTANT EDITOR
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**Display advertisements**: 3 pm Thursday, eight days before desired publication date. Camera ready artwork is required to size, complete with halftones if necessary. Contact Public Affairs for sizes, rates and other particulars.

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University of Alberta

#### 'Israelfest' presents the hole truth

The day after he presented his public lecture in Edmonton, Stephen Hawking left for Banff and an international conference called "Black Holes, White Holes, and Wormholes." The four-day affair was held in honour of Werner Israel, University Professor of Physics and one of Dr Hawking's closest collaborators, and it was the main reason why Dr Hawking journeyed from Cambridge University to Alberta.

With Professors Hawking and Israel and 14 other top theoretical physicists and cosmologists in attendance, this was a significant conference but one not without latitude. "Early afternoons are free for recreation, informal discussions, poster sessions or contributed lectures by diehards who can round up their own audience," delegates were informed by Don Page (Physics) and the other members of the organizing group, a.k.a Israelfest Committee.

"We can announce prospective contributed afternoon lectures in the morning, but we take no responsibility for competing with the scenery for an audience."

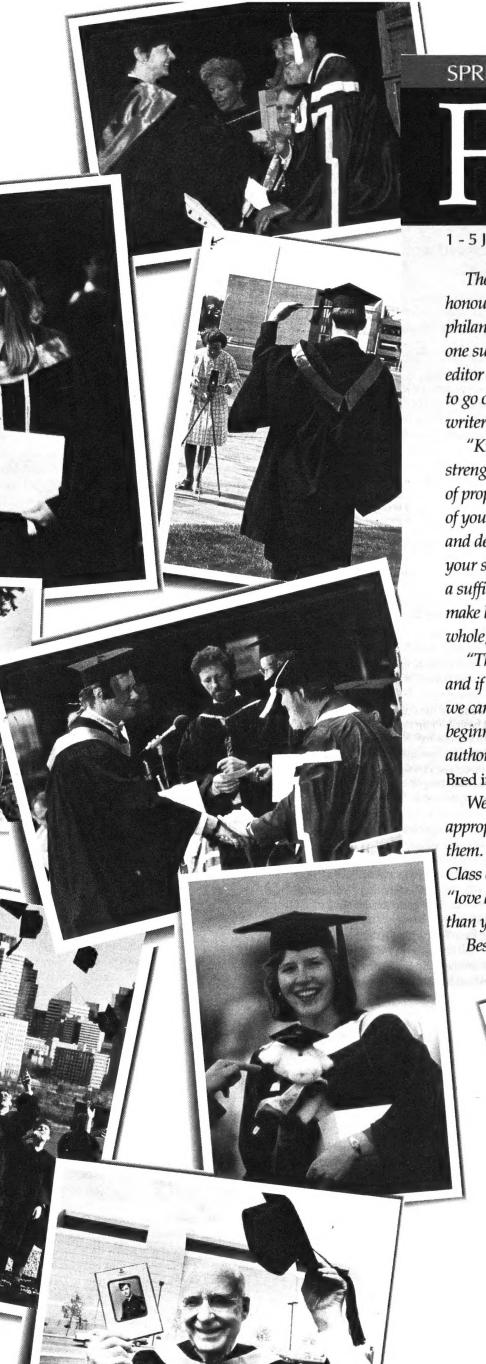
Delegates were also advised that there would be competition for cheap airfares and

alternative accommodation from a medical conference whose title—"Advance Treatment Directives: Confronting Death Together"— "might complement our black hole topic."

Dr Hawking, who supplied the title for the symposium, spoke on "Black Holes and Quantum Coherence;" Dr Israel spoke on "Internal Constitution of Black Holes."

The symposium, which took note of Dr Israel's 60th birthday, was sponsored by the Canadian Institute for Advanced Research (CIAR); the Canadian Institute for Theoretical Astrophysics; the University of Alberta, Department of Physics, Department of Mathematics, Theoretical Physics Institute; and the University of British Columbia Physics Department.

An "institute without walls", CIAR programs focus on frontiers of modern science; foundations of emerging core technologies; and societies' adaptation to change. CIAR maintains programs in artificial intelligence and robotics; cosmology (Dr Israel is the distinguished CIAR cosmologist at the University of Alberta); evolutionary biology; population health; and superconductivity.



SPRING CONVOCATION 1992

# FOLIO

1-5 JUNE AND 8 JUNE

The University of Alberta has awarded honourary degrees to princes, politicians and philanthropists. Thirty-five years ago, it gave one such degree to the Peterborough Examiner's editor and literary critic. Robertson Davies was to go on to become one of this century's greatest writers in the English language.

"Knowledge will give you certainty and strength," Davies told the Class of '57. "A sense of proportion will keep you from making a fool of yourself; but only these things allied to love and devotion to something vastly greater than your single self will carry you through life with a sufficient degree of happiness and serenity to make life endurable, honourable and, taken as a whole, noble.

"The great things of the spirit lie all about us, and if we choose, and are sufficiently determined, we can ally ourselves to them. You have made a beginning at this university," said Davies, the author of such books as Fifth Business, What's Bred in the Bone and The Rebel Angels.

We believe Davies' sentiments are as appropriate today as they were when he voiced them. Folio hopes that you, graduands of the Class of '92, will be able to ally yourselves with "love and devotion to something vastly greater than your single selves."

Best wishes!



#### **Graduand** wants to practise medicine in rural setting

Profoundly influenced by her work with people diagnosed as HIV-positive

or three years, graduand Vesta Warren has been working on a full-time, part-time and casual basis, depending on the time of year, at Karos House, a residence for people who have been diagnosed as HIV-positive.

"I was fascinated with the disease," says Warren. "So when I had a chance to work with these people, see the disease firsthand and to assist in some way, I jumped at the opportunity," explains Warren, who will receive her Bachelor of Science with honours in Zoology this spring.

"For the most part, these people are ostracized by society," says Warren, who grew up in Claresholm. At Karos House, people are at various stages of the disease—recently diagnosed and those who are dying. "You really learn a lot about people, life and different social issues," says Warren.

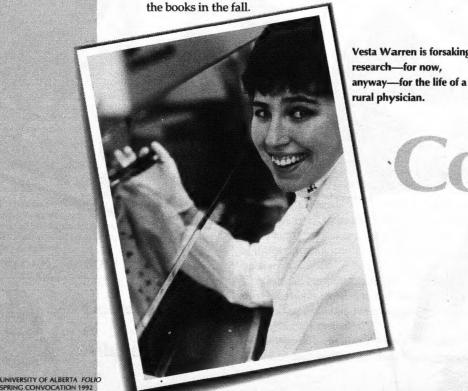
In fact, her experiences at Karos House (it's run by Catholic Social Services) helped her to reach a decision to apply to the U of A's Faculty of Medicine. Despite being offered one of this country's most prestigious scholarly research awards on condition she pursue graduate studies, a 1967 Science and Engineering Scholarship from the Natural Sciences and Engineering Council of Canada, Warren has turned down the scholarship and instead decided to do an MD.

"I had decided at the age of seven that I was going to be a medical doctor; I worked with our county veterinarian. And my work at Karos House has really solidified that decision," she says, adding that clinical research is a secondary interest and perhaps a longer term goal.

"I'd like to graduate from medicine, work in rural communities for a number of years, raise our family in a rural setting [Warren is married to law student Robert Warren] and then look at going back to become a specialist, most likely in infectious diseases," she says, noting that she'll only be 26 when she graduates from medicine and, therefore, will have lots of time to accomplish what she wants to do.

Warren is entering the medical field at an exciting time. More and more medical schools are moving towards more holistic teaching models, more self-directed learning and a greater reliance on tutorial learning. Warren says medical schools are going to have to realize that "there's more to a person than what you can measure." Warren, who lauds Claresholm physicians' dedication to, and compassion for, their patients, and the physicians she met through Karos House, says, "If you want to really help people, you have to understand what's going on in

She's received a summer studentship from the Alberta Heritage Foundation for Medical Research and will be working with David Tyrrell (Infectious Diseases). And then, it's back to



Vesta Warren is forsaking



Dean McDonald and Colleen Shannon: choosing different

#### Two botany graduands:

one opts for graduate studies, the other for a profession

olleen Shannon and Dean McDonald have a lot in common. They'll both graduate this spring with Bachelor of Science (Honours) degrees in Botany. They're both 22 years of age, they've enjoyed their studies in a department they both say is first-rate, and they'll both be married this summer. But the similarities end there.

With no job prospects in sight, McDonald is applying to the Faculty of Dentistry. "I don't want to spend my life in a publish or perish environment," says the recipient of the Natural Sciences and Engineering Council of Canada undergraduate award in each of the last two years. "Even when things are at their best, you still wonder what you'll have at the end of four years."

Shannon, on the other hand, will be staying with the department for her master's degree. "I want to go to graduate school. I do want to do research because I find there's so much to learn," says Shannon, who feels she can contribute to the field of paleo-ecology, the study of extant and fossil organisms to establish the nature of the life of past ages and the environmental conditions which prevailed.

She expects her thesis, which will be supervised by Professor Michael Hickman, will take two or three years to complete. Her work on the environmental changes over the post-glacial period will focus on acidic lakes in an area north of Fort McMurray.

Shannon, who was born and raised in Edmonton, took two years of general sciences, not knowing in which discipline she would specialize. Crucial to her decision, however, was an introductory course she took in the Botany Department. Successive courses within the department confirmed her decision.

McDonald's eventual arrival on Botany's doorstep was circuitous. Graduating with the top marks in Westwood Community High School in Fort McMurray, he enrolled in the transfer program at Keyano College. He took his first year science courses there—and doesn't regret the decision.

"It was probably the best choice I could have made," he says. "At the last minute, I decided to go to Keyano. You don't get lost in the shuffle. In the first year, the classes are fairly small and you're able to talk to your professors directly. I liked the nice small atmosphere." McDonald also speaks well of the college's academic standards.

Nothing can really prepare students for their first day of classes at the University, he says. Shannon adds that when students first arrive, it's difficult for them to meet people and it's rating to deal with some of the administrato

Both agree that the Botany Department has some very good teachers. "In this department, those professors who have been around a while really know their material and they're not hard to get a hold of-due in part because it's a small department," says McDonald. Shannon points to David Cass, who has received a number of teaching awards, as a very good teacher who knows his stuff.

## Senior decided to return to university

When others were thinking about retirement

elen O'Reilly believes other mature students likely have a more difficult time getting through university than she has had. "I'm relatively independent now," says the soft-spoken senior citizen who will convocate in the fall.

"I no longer have the family responsibilities and I thought it would be a good time to do a degree," says O'Reilly, who has been a full-time student for four years in the Canadian Studies Program. "A lot of my friends think I'm crazy, but I think it really depends on what you enjoy doing."

And what O'Reilly enjoys is learning. In fact, she has always taken night and summer classes at universities. "I didn't have any misgivings [about returning to school] once I made up my mind." She admits there were times when she would have preferred to be with people her own age, "but I enjoy being with younger people."

She hasn't felt pressured to be a super-achiever (she believes her final average will be about 7.0) and while she's attended the U of A, she's never lost sight of the fact that university life is only a part of her life. O'Reilly, who has raised three children and who has worked throughout her life, says she has great sympathy for her younger colleagues, who have to worry about their job prospects and the future.



Helen O'Reilly always wanted to attend university. Earlier in her life the opportunity just never presented itself. Now she's done it.

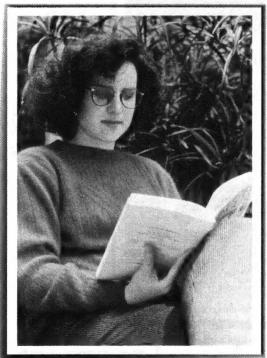
O'Reilly was born in the Ottawa Valley and grew up in a very political family. Her parents were long-time Tories, and she distinctly remembers the day in 1934—during the middle of the Depression—when Mitchell Hepburn's Liberals were elected in Ontario. The next day, her father lost his job. She maintained her interest in politics throughout her life, however.

She worked for the federal government during the war and then went to work for three and one-half years for Eugene Forsey, who at the time was the research director for the Canadian Labour Congress. Working with Forsey, who became well-known across the country for his letters and articles on public affairs, was very challenging indeed. The experience was also a formative one. "I learned a lot about the labour movement and politics," O'Reilly says, adding that they were tumultuous times in the history of the Canadian labour movement. Another plus was that the eminent grammarian insisted his staff write well. (O'Reilly says her writing and speaking skills served her well in her university studies.)

She then spent four years in Pakistan with an engineering firm (Canadian expertise was being employed to assist with the construction of a massive hydro-electric project). It was there she met her husband. She admits candidly that when they returned, she missed the sunshine and the servants, but it was nice to be home.

Asked whether the experience overseas enhanced her appreciation for her country, she says there's no doubt it did. Today, the current malaise and constitutional impasse has left her saddened. "I think I'm more upset about the situation than most people," she says, and that's likely because she lived through the war years and the Depression.

"We were so united during those [war] years," she says.
"It's hard to believe that we've grown so far apart. I'm not so
pessimistic, though. We were united at one time, we can be again."



Danielle Forth found a home in the Women's Studies Program.

"I'll never think the same way again."

## Student acquires critical thinking skills

**Enrolled in Women's Studies Program** 

n junior high school in Hay Lakes, Danielle Forth had decided that the girls should have the same opportunity as the boys did to play football in physical education class. Her phys ed teacher thought otherwise.

"Usually, the girls were told to stay inside and play volleyball," says 25-year-old Forth, who will graduate this year with a Bachelor of Arts degree with a concentration in Women's Studies. "I was very insistent, and my phys ed teacher threatened to kick me out," recalls Forth.

"I had a number of problems coping with that environment," she says.

After she graduated high school, she went to Olds College. "At that time it seemed like fashion was the major interest in my life," says Forth, who wanted to become a fashion merchandiser. "I fast learned that there was no way I was going to survive in that environment either." After a year there, she returned to Edmonton, where she had lived as a youngster, and found a job at the University in the Faculty of Education's Publications Services.

Two years later, in 1987, Forth decided to return to University. "When I decided to pursue a university degree, what I looked for was an environment where I would feel safe and comfortable to explore the kinds of thought processes I was engaged in. I thought I would start out in psychology. I learned that psychology was rather male-dominated, and it wasn't really answering the kinds of questions that I was asking.

"Suddenly this door opened when I decided psychology wasn't for me," she says. "Lo and behold, there was Women's Studies!"

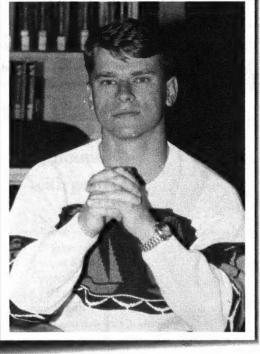
Home, sweet home—that's how Forth describes her discovery of the Women's Studies Program. Suddenly, she was examining questions that had hitherto been unaddressed. She studied women writers, women in the law, women in politics and women in religion. A whole interdisciplinary world of study was at her feet. "I finally felt like this was where I belonged."

She took formative courses with Professors Ann Hall (Physical Education and Sport Studies), Dallas Cullen (Business) and Patricia Rooke (Educational Foundations). These and others enabled Forth to explore gender-related questions. But she says the single most important skill she acquired was the ability to think critically.

"I'll never think the same way again."

Forth's carried those critical thinking skills into the world of publishing, here at the University with Publication Services. "I'm interested in the publishing industry. I'd love to [work in an environment] where I could promote women's writing." Forth isn't ruling out graduate studies at some point, either.

Christophe Sprysak's interest in accounting was cultivated in the company of good teachers.



#### Hu Harries Award recipient disciplined, hard worker

**Christopher Sprysak admires professors** who take teaching seriously

> hristopher Sprysak is this year's recipient of the Dr Hu Harries Medal in Business. The annual award is the Faculty of Business's top award, given to a student who has received the highest academic standing in his or her final two years of the Bachelor of Commerce program.

In his third year, Sprysak earned an 8.8 average and in his final year he earned an 8.9 average. Not bad for a student who admits he has a poor memory. However, Sprysak's other strengths have more than made up for that weakness. The Edmonton native says he was a little bit surprised by his achievements.

Asked whether he attributes his successes to plain, hard work, Sprysak says, "Yes, I think so. The key is discipline," he says, explaining that although he wasn't completely prepared for the workload in the first year, during his second year, he established a regular work routine and could often be found in the Business Library. "I'm not as bright as a lot of people are, and I realized if I wanted to get anywhere I would have to work hard."

When he arrived on campus in September '88, Sprysak enrolled in business. He wanted to get a general idea of the possibilities in business. But along the way, he took an accounting seminar with Henry Kennedy (Accounting). "It was a really good seminar. The professor was very good, motivated and enthusiastic." The course proved to be very influential.

Sprysak describes the experience with Professor Kennedy as "the first step. A lot of professors contributed to my interest. Clearly, they are a dedicated group," he says about faculty members who dispelled the myths and stereotypes of the accounting profession and made it clear that the entire business world relies on accountants' expertise.

Sprysak, whose father is a physics teacher at Harry Ainlay High School, admires professors who are committed to both teaching and research. Some didn't care about teaching, he says, and then there were others, for example, Christian Janssen (Finance and Management Science), who would go that extra mile to conduct Sunday tutorials prior to exams.

"Overall, I enjoyed my experiences here [at the U of A]," says Sprysak, who still found time to golf, participate in the University's squash club and play intramural sports. He had to give up piano, however, when he enrolled. He also managed to squeeze two philosophy courses into his program. "Philosophy's not really my thing, but I found them really interesting," he says, stressing that it's important and refreshing to take courses outsi of one's own Faculty. In fact, he says he felt somewhat restricted by the number of required courses he had to take.

"I feel I grew academically and grew more into adulthood," says Sprysak, adding that setting priorities and taking responsibilities and time management seriously were important skills he acquired at his alma mater.

Sprysak's immediate future is in the world of accounting. He's articling this summer with Price Waterhouse, a firm he's already spent a summer working for. He wants to stay in Edmonton for a while, work in accounting, and then return to take a law degree. In the longer term, corporate law is a possibility.

#### **Biochemistry** graduand heading for med school

Priority is to work with people, she says

ne of the Biochemistry Department's graduands believes it's important that students get involved in other activities besides studying while they're in university. Jennifer Walker wouldn't have had it any other way.

"I think it's important for people to be well-rounded," says Walker, one of this year's top students in a department reputed to be the best in Canada. "Some people don't join clubs while they're here and, therefore, they don't know as many people in University. But if you get involved at University and meet people, it's more fun that way," says Walker, who will receive a Bachelor of Science degree with honours in Biochemistry

Walker got involved. She joined the U of A Mixed Chorus in her first year, serving on its executive at one point. She taught piano during her first two years in University. She was a Girl Guide leader. She joined the U of A Dance Club. And to keep in shape and relieve the school-related tension, she maintained her membership at the YWCA.

In her first year of general science, she earned an 8.8 average, in her second year, an 8.9. In her third year, she earned an 8.3, and in her fourth year, she earned an 8.2. Ye she acknowledges, her marks went down, but she notes tha during her last year she was able to strike a good balance between scholastic and extracurricular activities. "I tend to leave things to the last moment," she says about her study habits, but in order to maintain extracurricular activities so vital to her well-being, she organized her time as efficiently

During the summer of '90, she received a Summer Studentship from the Alberta Heritage Foundation for Medical Research, awarded to promising Alberta university students to experience research. "I found research very interesting, but it's not something I would want to do for the rest of my life," she says.

"I'm more of a people person," says Walker, and that's one reason why she wants to become a physician. She's been accepted by the Faculty of Medicine and will start in the fall. She believes her biochemistry background will be a good, solid basis on which to found a career in medicine and she's glad she didn't go into medicine immediately.

"This is what I wanted to do—to have the opportunity to help people and work with people."

lennifer Walker, working

















"My parents never pressured me and supported me in whatever I chose to do," she says. And so, with her South Pacific

worked for two years.

From chamber maid

to one of University's

top students

experiences under her belt, she decided to become a travel agent, "That turned out to be the worst eight months of my life," she says, and it proved to be even more frustrating because she realized she had yet-untapped potential. She enrolled in a career course in an effort to determine what her next step would be.

Gwen Allison receives one of NSERC's top awards

hen Gwen Allison completed high school in Delburne, Alberta, she

"I didn't know what I wanted to do and I had no obligations,"

headed for Banff, where she worked for six months as a chamber

maid. It was one of the worst jobs she had ever worked.

says Allison, whose family has a mixed farm in the Delburne

area. Even though she had done extremely well in high school, she simply couldn't see herself jumping back into a learning

environment without some more definite plans and direction.

So she headed for the South Pacific, where she travelled and

Gwen Allison, one of the continent's top food science undergraduates, could experience the joys of working in top esearchers' laboratorie

**Supreme Court Justice** recognized by U of A One of 10 honourary

degree recipients

n old friend of the University of Alberta is returning this spring to receive an honourary Doctor of Laws degree. Justice William Stevenson, a Justice of the Supreme Court of Canada and a professor in the Faculty of Law for 12 years, will receive a second degree from his alma mater.

Justice Stevenson earned his Bachelor of Laws degree from this University.

During his many years in Alberta, Justice Stevenson practised law, was named a Judge of the District Court of Alberta, a Justice of the Court of Queen's Bench of Alberta in 1979 and, a year later, a Justice of the Court of Appeal of Alberta and the Court of Appeal for the Northwest Territories. He was appointed to the Supreme Court in 1990.

The Honourable Gordon Towers, Lieutenant Governor of Alberta, will receive an honourary Doctor of Laws degree as will Madam Justice Ellen Picard, Vice-Chair of the Law Reform Commission of Canada and also an old friend of the University Madam Picard, an alumna of the University, taught in the Faculty of Law for 15 years before leaving in 1986 to become a member of the Court of Queen's Bench of Alberta.

Former Board of Governors member Sandy Pearson (he heads Century Sales and Service Ltd of Edmonton) will also be awarded an honourary Doctor of Laws degree. Pearson has been extensively involved in community work and in the

Oles Honchar, a prominent Ukrainian prose writer of the post-war period, will receive an honourary Doctor of Letters degree. French author and scholar, Hélène Cixous, will receive an honourary Doctor of Laws degree. She is a professor of English at the University of Paris VIII.

Ronald Jordan, Dean of Dentistry at the University of Manitoba and a graduate of the U of A, will receive an honourary Doctor of Science degree. In conjunction with the Faculty of Dentistry's 75th anniversary celebrations, David Barmes, Chief of the Oral Health Unit of the World Health Organization in Geneva, will be awarded an honourary Doctor of Science degree.

The former president of Mount Saint Vincent University, Naomi Hersom, will receive an honourary Doctor of Laws degree. Dr Hersom was a member of this University's Department of Elementary Education from 1969 to 1975. In conjunction with the Faculty of Education's 50th anniversary, Ted Aoki, Professor Emeritus of Secondary Education, will receive an honourary Doctor of Laws degree.

She then made a pivotal decision: she enrolled at the U of A. Her first year was tough. She took a remedial mathematics course. (She describes her first-year math as "just a nightmare".) She had four labs. Nevertheless, her farming work ethic served her well. She got involved in the Food Science Club and became the vicepresident. In her third year, she became president. She became student rep to the department, an undergraduate rep to the Faculty and a member of the WISEST (Women in Scholarship, Engineering, Science and Technology) planning board, and she attended several food science-related conferences.

As her interest in food science grew, so did the industry's interest in her. In her third year of the Bachelor of Science in Food Science program, she was awarded the Institute of Food Technologists Award, the Inspiration for Tomorrow Scholarship. Only one a year is awarded to an outstanding undergraduate student by the largest organization of food scientists and technologists in

During the summers, Allison worked in Michael Stiles' (Food Science) and John Vederas' (Chemistry) laboratories, where she grew to appreciate research. "It's so unfortunate that more students don't have the opportunity to work in laboratories during the summers. Those were such enriching experiences," she says, adding that she met graduate students from around the world who she'll always treasure as friends and colleagues.

Now, Allison is a few short months from starting a PhD program at North Carolina State University, with one of Dr Stiles' close colleagues, Todd Klaenhammer. (She was awarded one of the Natural Sciences and Engineering Research Council's most prestigious awards to pursue graduate studies.) She's aware of the 'golden rule of graduate studies"—it takes longer than expected. And although she'll be able to maintain that strong network of friends and colleagues she was able to establish at her alma mater, she's not looking forward to leaving the U of A.

Her advice to students? "Make the most of what's here at the University. Go with the system, instead of fighting it. A lot of students believe that the University system works against them, but it doesn't. It values students' input."

Dr Stiles says that without doubt Allison is the most outstanding undergraduate he has ever taught during his academic career. "She utilized her courses and elevated her thinking as an undergraduate to the level of a graduate student. She has just an incredible academic and scholarly record."

UNIVERSITY OF ALBERTA FOLIO SPRING CONVOCATION 1992

UNIVERSITY OF ALBERTA FOLIO
SPRING CONVOCATION 1992

"I learned to become aware of biases held by people... and not to get caught up in misconceptions about groups of people."

# Health promotion advocate influenced by key Phys Ed faculty

Sandra Bannard experienced campus as single student and then as a mother

or the first three and a half years, Sandra Bannard (formerly Lemermeyer) lived the typical life of á university student. She resided close to campus, participated in intramurals, and socialized with friends. Then, in January 1990, her life changed. She had a baby.

So Bannard took a year and a half off, returning to Drayton Valley, where she grew up, to nurture newborn son Michael. She returned to the U of A in September 1991 to complete her Bachelor of Physical Education in Fitness and Health degree. This time, however, things were different.

"Initially, it was hard for me to leave my son," says the 23year-old, whose sister looked after her son. "I felt guilty, but I knew it wouldn't get any easier as I got older. It seemed like the right time to do it. I wanted to get it [the degree] done and get on with my life." And that's exactly what Bannard did.

Suddenly, as an expectant mother, she was aware that there weren't many, if any others, like her in the Faculty. Not once, however, did she ever feel ostracized, and good friends stepped in to support her. "Sometimes I felt a little special," she says, explaining that because the baby was due near exams professors were willing to make alternate arrangements in the event the baby came in the midst of exams.



Sandra Bannard hopes to stress the element of fun in community recreation.

During her final year, she commuted (it's a 40-minute drive) so she could be with her son and husband, Ken. She arranged her course schedule so that she wasn't attending five days a week.

The sacrifices were worth it. "The jobs just aren't there, though," she says, but she's determined, nevertheless, to make a difference in her community.

Bannard, who recently coached a pre-schoolers gymnastics program, wants to apply a philosophy of learning to physical activity that diminishes the competitive element and stresses the fun element. When asked who her mentors are in the Faculty, Bannard is unequivocal: Art Burgess and Sandy Cousins. Both professors, she says, are making a difference in the quality of people's lives.

"What I most value about University is that I learned to become aware of biases held by people—toward the poor and women," she says, "and not to get caught up in misconceptions about groups of people." She adds that a sociology of sport class she took with Ann Hall "opened a lot of people's eyes" regarding women's limited opportunities in the world of recreation and sport.

Law graduand going to clerk for Supreme Court

Four U of A graduates going to Ottawa

he past three years have been exhilarating ones for 34-year-old Kerry Rittich, who fulfilled a long-standing desire to return to school to study law.

"Law school was an intense experience and unlike anything else I'd ever done," says the flautist with the Edmonton Symphony Orchestra, who earned her undergraduate music degree from the University of Toronto and who will receive her Bachelor of Laws degree this spring.

"I love being a musician, but there are parts of you that it doesn't use," she says, candidly admitting that she was getting bored. "I always found law intriguing. You get to find out about all those rules and structures by which we organize ourselves socially. And one of the things that happens in law school is that you begin to ask yourself, 'How did I ever get through life without knowing this?""

She was an enthusiastic student, and applied herself. (She says the discipline required to be a professional musician served her equally well in the study of law.) She enjoyed reading and thinking about ideas. She got involved in the life of the law school. She worked on the law review and helped to organize a conference on women and the Constitution.

"The social structure of the law school is still very much geared to people who come directly to law from undergraduate school, but there's an increasing number of us who are older and there are a lot of people who have families."

The law school, however, is beginning to be more accommodating to people who don't fall into that category of student for which law school was originally designed, she points out. For example, the introduction of a part-time program this fall is a step in the right direction and vital to women and those who have families to look after. "

On curriculum, Rittich says, "One of the things I'd like to see the law school do is to acknowledge a little more directly the fact that not everyone who comes through these doors will be able to or necessarily want to be engaged in the conventional practise of law," she says, suggesting there may be too many required courses. The academic structure was more rigid than what she was used to. "I'd like to see it relaxed," she says.

"The law school and the profession are still much less comfortable places for women to be. One of the first things I noticed was just how much more sexist an environment it was compared to what I was used to."

The profession is fairly traditional in the way it operates, but it can't continue to function as if people don't have other lives, she says. "Sometimes I think people in the profession haven't digested what it really means to have women in the profession; they don't really realize what that means in terms of how they run their own firms—or what it should mean."

Now, she's looking forward to working at the Supreme Court of Canada as a clerk to Madam Justice Claire L'Heureux-Dubé. "I applied and was accepted, and it's not the sort of thing that you'd ever dream of turning down," she says, explaining that this year-long experience is a partial means of fulfilling articling requirements before being called to the bar. (In fact, the U of A is very well represented this year, with four graduates serving as clerks.)

Reflecting on the past three years, Rittich concludes: "There's something very powerful about law, and when you study law, you realize you're in the middle of something that can be very powerful in positive and constructive ways or in negative and destructive ways. This is not a benign exercise—the study and practice of law. I think that must be what we're sensing and feeling [while in law school]."

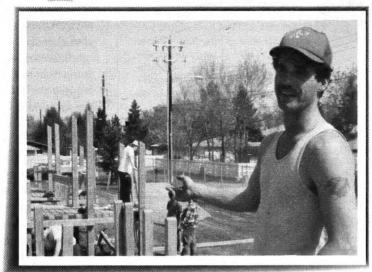
Kerry Rittich: the study of law is not a benign exercise.



#### Student 'always knew' he'd attend university

#### Once enrolled, confidence became Tom Lassu's middle name

fter graduating from high school, Tom Lassu went to work in the construction industry. But then he had a boss he didn't particularly like. "He was a very intelligent man, but he was miserable about where he was and what he was doing," says the 27-year-old Lassu, who was born and raised in Heisler.



Tom Lassu, along with other volunteers, recently put his expertise to good use by helping the Elves Memorial Child Development Society construct outdoor facilities.

"I just decided I didn't want to be like him," says Lassu, who averaged 65 to 70 percent grades in high school, despite—by his own admission—not working very hard at it. So, he enrolled in Alberta College to pick up the necessary courses for admission to university.

"I always knew I was going to go to university one day, but I wanted to be independent about it. At first I was a little worried about failing, but upgrading gave me the confidence I needed," he says, adding that he really applied himself to the tasks at hand. Once enrolled in the Faculty of Engineering, Lassu looked around and realized that he could do the work.

He developed friendships with several people. "You're only really as good as the people surrounding you," he says, adding that he likely couldn't have earned his Bachelor of Science in Civil Engineering degree (Construction Engineering Program) without the support of these people. "There's a lot of pressure in engineering," he says, and fellow students understand what others are going through.

Lassu continued to apply himself, with notable results. He earned the Tom Chambers Leadership Award 1990, served as Vice-President of the Civil Engineering Students' Club, organized a technical tour of the Diashowa pulp mill for students, and served as a student representative on the department's curriculum review committee. He earned the Nick Oneschuk Memorial Scholarship, given to an outstanding student entering the fourth year of the BSc program in Engineering who has a significant interest in construction engineering.

Summer employment with Ledcor Industries Ltd—he rose from labourer to foreman—kept some money rolling in during his student days.

Asked to reflect on some of the more important things he learned as a mature student in university, Lassu says "the best way to get things done is to have a lot of balls in the air at the same time. It forces you to get things done." And to accomplish anything significant, you have to have everyone on-side.

Regarding his program, professors he worked with on the curriculum review committee helped to convince him of the validity of having a broadly based, general education. "If you want to specialize, then take an MEng or MBA."

Lassu, who has accepted a position with PCL Construction Management Ltd, says attending university has broadened his horizons. "It's been enlightening and I'm now less judgmental of people." Working with numbers of people with diverse backgrounds has taught him a very basic lesson: people have a lot in common. "They want good jobs and the same things you want for your family."

#### A family affair

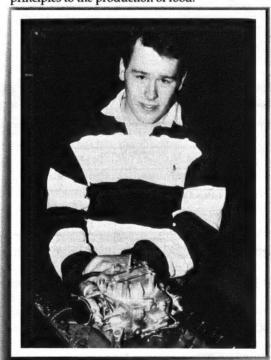
### David Olsen follows in parents' footsteps

hree floors up from a laboratory in the Agriculture-Forestry Building where 22-year-old David Olsen has spent a great deal of his time, a photograph of his father hangs. His father earned a Bachelor of Science degree (Agriculture) in 1964 and, in 1962, his mother earned her Bachelor of Education degree (Home Economics) at the U of A.

Olsen's acutely aware of his family's traditions and how they are intertwined with the province's largest university and the province itself. (His great-grandfather, a Danish immigrant, homesteaded in the Olds area in 1893. Today, the 1,200 acre family farm produces grain and cattle.)

"It was great to grow up on the farm," says Olsen, who is about to receive a Bachelor of Science in Agricultural Engineering. "I enjoy working outdoors, the challenge of beating the weather and producing food for others to enjoy. Farming is not just a business, it's really a lifestyle."

That doesn't mean, however, that farms shouldn't be operated according to business principles. "Farmers have to keep up with the best methods and make decisions based on economic sense," says last year's Engineering Students' Society President. That's where the Agricultural Engineering program fits in. Olsen says its allowed him to relate engineering principles to the production of food.



David Olsen helped enhance the quality of life for engineering students.

"The formal education allows you to figure out the why before the how."

Olsen's first post-university job won't be in the agricultural industry, however. He's going to be a project engineer with Proctor and Gamble in Grande Prairie, and he considers himself fortunate under the circumstances. "It's not just a job, but the start of my career," says Olsen, noting that he's leaving the intensely political environment of the University for one where the goals are clear-cut and agreed upon and where the bottom line is to make money.

He says candidly that it is amazing just what has to be done which to change or improve something at the University, but that hasn't stopped him from getting involved. A member of the organizing committee for Engineering Week, Olsen was also the 1990-91 Vice-President (Social) of the Engineering Students' Society, a participant in Lister Hall residence activities and an avid hockey player.

"The cohesion within the Faculty of Engineering is definitely there and there's a lot of tradition," he says.

It could be that Olsen typifies the new breed of employee employers are scouring university campuses for. He believes Proctor and Gamble hired him, in part, on the basis of his extracurricular involvement and ability to work with groups of people. Chances are, both the firm and the Grande Prairie community will benefit from Olsen's presence.

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#### Graduands asked to fill out survey Information will be used to strengthen undergraduate programs

he University of Alberta wants to know how satisfied you, the graduands of '92, are with the education you received at your alma mater.

"We want to know what we're doing right and what we might do to improve the quality of education. We put such a high priority on undergraduate education," says Vice-President (Student and Academic Services) Lois Stanford.

According to Registrar Brian Silzer, the purpose of the survey is not only to assess the level of satisfaction with undergraduates' programs, but to send a message to graduands that "we care about the quality of their experience here and that we value their opinions.

"I hope, based on their input, we can make appropriate changes that will enhance the experiences of students to come," said Silzer, who was directed by Vice-President (Academic) John McDonald to conduct the survey.

The 11-page survey asks questions such as: If you could choose again, would you still choose to attend the University of Alberta? And, overall, how satisfied are you with the education you received at the University of Alberta? One section of the survey is devoted to whether a U of A education contributed to improving specific skills such as writing, speaking, critical judgment and creative thinking, to cite a few examples. Another section deals with evaluating students' learning experiences. Yet another section asks students to measure just how satisfied they were with classroom, laboratory, computing and library services, as well as other support services on campus.

The survey will take about 15 minutes to complete. Says Silzer: "We hope students will see this as a valuable project and will respond in large numbers. We hope they [students] see this as one of their responsibilities of being graduates of this institution."

More than 4,000 students convocate each spring. About half of those attend convocation ceremonies. The survey, which will be included with students' degree parchments, can be dropped off at the Jubilee Auditorium, Students' Union Building or Administration Building.



The University of Alberta is committed to the principle of equity in employment. The University encourages applications from aboriginal persons, disabled persons, members of visible minorities and women.

#### **ACADEMIC**

#### J ALAN GILBERT CHAIR IN MEDICAL EDUCATION, FACULTY OF MEDICINE

The Division of Studies in Medical Education at the Faculty of Medicine of the University of Alberta invites applications for the J Alan Gilbert Chair in Medical Education.

The successful applicant will have an MD degree with additional qualifications in Medical Education or a PhD in Education with expertise in one of the health sciences. Applicants should have an independent program of funded research in medical education, including a convincing record of peer reviewed publications, and should have strong administrative and teaching skills. The Gilbert Chair holder will be expected to provide leadership for the Faculty in research in medial education.

The academic rank for this position will be at the Assistant or Associate Professor level and salary will be commensurate with qualifications. Interested candidates should send a letter of application, *curriculum vitae* and the names and addresses of three referees by 15 July 1992 to: Dr DA Cook, Director, Division of Studies in Medical Education, 2J2.11 Walter Mackenzie Health Sciences Centre, Faculty of Medicine, University of Alberta, Edmonton, Alberta T6G 2R7. In accordance with Canadian Immigration requirements, this advertisement is directed to Canadian citizens and permanent residents.

#### INFORMATION OFFICER, INTERNATIONAL CENTRE

The International Centre, a unit within Student Services, works with foreign and Canadian students in their search for an international and development education. In addition, the International Centre works in cooperation with other University offices and more closely with Alberta International, with whom joint information services are shared.

The successful candidate for Information Officer at the International Centre will be responsible for the ongoing development and implementation of a unified strategy which meets the information needs of the International Centre.

Specific responsibilities of the Information Officer include: consulting with staff, students, and University departments to assess information needs; planning, producing and evaluating publications, publicity and audiovisual materials; editing, publishing and supervising the distribution of the Newsletter; promoting the University's international services and programs through campus and community media; preparing articles for Centre-related publications; maintaining the International Centre's archives; supervising the Information Services Technician.

The ideal candidate will have: demonstrated writing and editorial skills; supervisory skills and experience; administrative skills and experience; knowledge of desk top publishing and design principles; knowledge of the production process for print and other media; ability to work as a volunteer and to supervise volunteers; an understanding of foreign student and education abroad issues; an understanding of issues in international development and development education; work or study experience in a cross-cultural setting;

ability to take initiative in a cooperative work setting; knowledge of/experience in a university work setting; a university degree.

The salary for the Information Officer starts at \$2,473 per month. The 12-month contract is subject to renewal.

Letter of application, résumé and list of references should be received by Mrs Sharon Schultz at the International Centre no later than 12 June 1992.

#### **SUPPORT STAFF**

To obtain further information on the following positions, please contact Personnel Services and Staff Relations, 2-40 Assiniboia Hall, telephone 492-5201. Due to publication lead time and the fact that positions are filled on an ongoing basis, these vacancies cannot be guaranteed beyond 22 May 1992. For a more up-to-date listing, please consult the weekly Employment Opportunities Bulletin and/or the postings in PSSR. Positions available as of 22 May 1992.

The salary rates for the following positions reflect adjustments in accordance with the new classification system and pay plan.

CLERK STENO (Grade 5) (Part-time), Drama, (\$1,484 - \$1,838) (prorated)

CLERK TYPIST (LEGAL) (Grade 5), Faculty of Law, (\$1,855 - \$2,298)

SECRETARY (Grade 5) (Trust), Family Medicine, (\$1,855 - \$2,298)

ACCOUNTS CLERK (Grade 6) (Parttime/term to 21 May 1993), Drama, (\$1,623 - \$2,024) (prorated)

ADMINISTRATIVE CLERK (Grade 6), Housing and Food Services (Personnel), (\$2,029 - \$2,530)

ADMINISTRATIVE CLERK (Grade 6), Faculty of Extension (Land Economics and Real Estate), (\$2,029 - \$2,530)

OFFICE SERVICES SENIOR CLERK (BENEFITS ASSISTANT), (Grade 7), Pension and Benefits Administration, (\$2,210 - \$2,769)

The following position retains salary rate in accordance with the previous classification system and pay plan.

DEPARTMENTAL/EXECUTIVE SECRETARY (Trust), Medicine (Cardiology), (\$1,966 - \$2,530)



#### PUBLIC LEGAL EDUCATION AWARD

An annual award of a value of \$1,000 has been created by the Sandra Garvie Memorial Fund to assist an individual to pursue a course of study or to undertake research into the library or information aspects of public legal education. The purpose of the grant is to encourage individuals to improve their knowledge of the field and, in turn, to add to the existing body of knowledge in this area. Candidates may be enrolled in a formal course of study at a community college or university, or may undertake an independent learning activity.

The award was created in honour of the late Sandra Garvie, Librarian at the Legal Resource Centre, Faculty of Extension, from 1976 to 1979, for her contribution to the field of public legal education.

The deadline for application is 30 June. For more information, please contact: Ms Lois E Gander, Director, Legal Resource Centre, 10049 81 Avenue, Edmonton, Alberta T6E 1W7. Phone 492-5732, fax 492-6180.



#### **ACCOMMODATIONS AVAILABLE**

VICTORIA PROPERTIES - Experienced, knowledgeable realtor with Edmonton references will answer all queries, and send information. No cost or obligation. Call (604) 595-3200, Lois Dutton, Re/Max, Ports West, Victoria, BC.

RENT - Greenfield, fully furnished, split level. 15 minutes - campus, close to Derrick Golf Course, French immersion school. Three bedrooms, den, garage. 1 July, one year, \$1,150. Western Relocation, 434-4629.

RENT - Oliver, new, upscale condo. Three storey, three bedrooms, family room, garage, available immediately, \$1,500. Western Relocation, 434-4629.

RENT - Spectacular view, executive condo, high style. Completely renovated marble, hardwood, silk wallcoverings. Must be seen. 1 August, \$1,775, Western Relocation, 434-4629.

RENT - Furnished, two bedroom house, near University. 1 July 1992 - 1 July 1993. \$750/month. 435-2154.

RENT - Three bedroom bungalow, furnished. Ten minutes to University, \$900/month plus utilities. Owners on study leave from 1 July 1992 to 30 June 1993. Call 492-5980 (work) 453-3392 (home).

RENT - Saskatchewan Drive. Executive, five bedrooms, three fireplaces, two storey, overlooking river valley. Four-car garage, jacuzzi, great dining room. 1 July, \$2,200 per month. 488-7425.

RENT - Windsor Park, house, garage, non-smoking. Available August, \$1,450 monthly, 481-6900.

SALE - \$102,500, two bedroom bungalow. Like new, fully finished basement. Sherry Mailo, Re/Max. 438-7000.

SALE - \$139,900, 1,660' bungalow, shows like new. Pie lot, hot tub, west facing backyard. Sherry Mailo, Re/Max. 438-7000.

SALE - University area, two bedrooms plus den, immaculate, just listed. Sherry Mailo, Re/Max 438-7000.

SALE - Large two storey, four bedroom, quality built home in beautiful Lansdowne location. Ed Robinson, Royal LePage, 437-7480.

SALE - Bungalow in Malmo, three bedrooms up, finished basement, fireplace, new carpets, double garage, \$141,900. Raymond Cheng, Royal LePage, 438-4700.

RENT - Belgravia, two storey, furnished. Four bedrooms, study, basement bedroom, 2 1/2 baths, family kitchen, fireplace. September 1992 - June/July 1993. \$1,200/month. 438-

RENT - Large, remodelled, older home. Available 1 June. Walk to University. \$900/month, includes utilities. Call 432-0114, 439-0954

RENT - Bungalow, walking distance to University. July to 13 August. 439-3223.

SALE - Lakefront, Pigeon Lake. Well designed, five-year-old home. \$169,900. Denise Rout, Spencer Realty. 435-6355, 435-0808.

SALE - Penthouse condo, 9929 Saskatchewan Drive. Superb river valley views, tastefully decorated. Denise Rout, Spencer Realty, 435-6355, 435-0808.

SALE - Belgravia, charming semi-bungalow, immaculate condition, \$159,900. Three bedrooms, 1 1/2 baths, separate living and dining rooms, hardwood floors, newly refinished basement. Lovely mature lot, close to campus, school, park. 438-5329.

SALE - Well maintained, five bedroom, two storey overlooking river valley. Walk to University and hospital. Huge lot, park-like setting. Great family home. Joan Lynch, Re/Max Real Estate, 438-7000, 433-9025.

SALE - University bargain! Riverwind resale - just one year old and priced \$20,000 below new units! Don't miss this opportunity to live on prestigious Saskatchewan Drive.
Nancy Steen, Re/Max, 426-4461, 498-1865.

SALE - 2,700', two storey, five bedroom elegant home in prestigious Belgravia. Spacious main floor family room, den. Lovely 46' x 130' lot. Great curb appeal. Call Nancy Steen, Re/Max, 426-4461, 498-1865.

RENT - Rooms for rent. Two bedrooms: one downstairs with adjacent bath, one upstairs. Occupants share house facilities, Bonnie Doon area. Immediate, \$250/month. Call owner, 592-2322 (collect), house 469-0957 (evenings).

RENT/SWAP - Place to stay July - 14 August in Edmonton. Teaching couple. Could swap spacious apartment in Frankfurt. Ray Morgenstern, Im Rosengartchen 114, 6370 Oberursel, Germany. Phone 0049-6171-23258. Fax 0049-6171-202172.

RENT - Five bedroom executive home, 25 minutes from campus. Quiet crescent location, spacious yard backs onto park. 1 September - June/July 1993. Furnished, \$1,100/month. 492-4251, 460-2918.

RENT - Millcreek, steps from ravine, Strathcona. Two bedroom main floor house, large kitchen, living room, shared washer and dryer, deck, parking. \$750 includes utilities, lease. 439-1813.

RENT - Glenora house, two plus one bedrooms, developed basement, double garage, fenced. Available 1 August, \$900/month, five minutes from University. Call Kevin, 422-0568 (day) 452-1825 (evenings).

SALE/LEASE - Luxury, adult low rise. Central atrium, fireplace, 16' ceiling, private fenced yard. Small pets allowed! Seven appliances, new carpet/painting. Two underground parking. Diane, 488-8844, Diane Kyle Realty.

SALE - Ermineskin, two storey, three plus one bedrooms, 3 1/2 baths, 12 1/2 years old. Heated double attached garage, large lot backs onto park. 15 minutes - University, \$164,900. 436-9676 evenings, weekends.

SALE - By owner, University area, Riverwind suite 1203W. Luxury setting with unparalleled view of river valley. Open house weekdays 5:30 - 7:00 pm. Price reduced. Recorded message with further details, 431-0090.

SALE - Family home, seven minutes to University. Spacious living room, cozy family room. Four plus one bedrooms, dining room, office, deck. Assume \$98,000 mortgage at 8 3/4%. Excellent value, \$155,900. 451-9493.

RENT - For months of July and August. Renovated, two bedroom house on Saskatchewan Drive. \$1,250/month. 439-4478.

RENT - Very nice, two bedroom basement suite in Windsor Park. Available immediately, \$525/month. 439-4478.

RENT - Aspen Gardens, immaculate home with garage, all appliances. Fifteen minute bus to University. Prefer nonsmokers for one year. Available 25 August 1992. 434-5640.

RENT - Petrolia bungalow. Furnished, three bedrooms, 2 1/2 baths, study, seven appliances. Mature landscape. Overseas posting, 1 August 1992 -1993. No pets, nonsmokers, references. \$1,000/month. 436-6387, 492-5048 (Margaret).

RENT - Duplex, west end (Lessard), 1 1/2 baths, three bedrooms, six appliances, double attached garage, fireplace, new carpet down, no pets. Available 1 July, \$800/month, \$800 damage deposit. 462-5705.

Continued on next page

RENT - Walk to University, executive, two bedrooms, den, five appliances, fireplace, underground parking. No pets, \$1,050/month, immediate. 481-3513.

RENT - Fully furnished, two bedroom home. Located between U of A and Southgate. Quiet neighborhood, easy bus access. \$800 total. July-August. 434-3152.

RENT - Big, bright, southside condo. Three bedrooms, 1 1/2 baths, basement, appliances. Close to amenities, bus, schools. 436-7587.

RENT - Three bedroom, unfurnished bungalow, 1,440'. Built-up basement including bedroom/kitchen. Five minutes to University/hospitals. Available 1 July, call 437-6738 after 6 pm.

RENT - Parkallen, four bedroom sabbatical home. 1 September 1992 - 30 June 1993. \$850/month plus utilities. 437-6930.

#### **ACCOMMODATIONS WANTED**

MATURE University employee available to housesit, previous experience. Phone Joanna, 433-8668 or 492-6365.

VISITING PROFESSOR needs two bedroom accommodation to rent/housesit. July only, nonsmoker. Abe, 492-3678.

RENT - Cottage. University of Alberta professor and three kids (9-12) looking for cottage/cabin for last three weeks in August. 492-3915, 436-0732.

MATURE, professional male available to housesit starting July. 420-5620 (days), 461-0994 (evenings).

#### **GOODS FOR SALE**

CASH PAID FOR APPLIANCES, 432-0272

#### **AUTOMOBILES**

FOR SALE - 1986 Suburban 4x4. Excellent condition, one owner, \$8,000. Dr Robert James, 434-0192.

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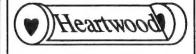
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